

**ALBERTA'S STRATEGY FOR
THE DEVELOPMENT AND UPGRADING OF
HEAVY OIL AND OIL SANDS RESOURCES**

Alberta

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Alberta has massive heavy oil and oil sands resources which amount to almost one-half of the world's heavy liquid hydrocarbon resources. Total resource potential is estimated at 2.5 trillion barrels of which over 300 billion barrels are recoverable with current technology. This is a resource comparable to all the reserves of the Middle East. Encouraging development of this potential and the growth and diversification of the Alberta economy through resource upgrading is a major priority of the Alberta government. Unlocking the still greater supply and realizing the potential of this resource will require research and further technological advances.

The two existing commercial integrated oil sands plants supply 12% of Canada's crude oil supply and provide a major contribution to the secure domestic oil supply Canada currently enjoys. Production from in situ projects, which use steam injection to produce the oil sands through conventional oil wells, is rapidly becoming more significant for Canada's crude oil supply. As the supply of conventional light crude oil declines in the future, the development of the oil sands resource will become increasingly strategic for Canada's energy environment.

In the development of these heavy oil and oil sands resources, Alberta's major objective is to promote optimal development of these non-renewable resources within the province using the best technology and with environmental and conservation sensitivity.

To achieve this objective, the Alberta government has established a heavy oil and oil sands strategy targeted at accomplishing the development of these rich resources. This strategy recognizes the massive resource potential, the technical and economic obstacles involved in its development and the potential contribution of this development to the economies of Alberta and Canada. It is based on the determination to realize that potential by developing the resources for the benefit of all Albertans. The strategy recognizes the potential need for governments to work with industry to overcome the unique barriers that face large-scale oil sands and heavy oil projects within an overall market oriented environment. Decisions must be viewed from a long term perspective of further development and diversification of the provincial economy. The key elements of this strategy are:

1. Maximizing the value added to the resource here in Alberta.

As with other natural resources, the level of benefits to the provincial economy are the greatest when the level of processing, and therefore, the value added to the resource is the highest. Maximizing upgrading of the resource within the province ensures that the capital is invested in Alberta, the jobs are created in Alberta, and the value added is captured in Alberta. The greater the degree of processing within Alberta, the greater are manufacturing and service sector opportunities created throughout the province.

2. Continuing diversification based on resource development.

Resource development creates engineering, construction and operating jobs in Alberta. It also builds a critical mass of support manufacturing and contracting companies necessary for further economic development in Alberta. The magnitude of the oil sands resource and long production life of integrated oil sands facilities adds to the stability of the Alberta economic base.

3. Ensuring development of the resource occurs in an environmentally sensitive manner which recognizes the needs of the local communities affected by resource projects.

All resource development is subject to regulatory approvals and permits issued by the Energy Resources Conservation Board and Department of Environment. This approval process ensures the opportunity for public input and provides channels for future monitoring and mitigation of potential problems. Applications for these approvals require that environmental assessments be submitted and the effects of resource development are minimized and that local industrial benefits, employment and training opportunities are maximized.

4. Ensuring that the people of Alberta, as resource owners, receive a fair share of the benefit of developing these resources.

A key element of the Province's resource development and upgrading strategy is Alberta's royalty regime for heavy oil and oil sands. This regime provides for lower royalties at the front end of a project, increasing gradually as the project recovers its costs. If the government becomes involved in ways other than that of resource owner, such as equity participant, lender or guarantor, the potential benefits of this participation must also be realized by Albertans.

5. Supporting research and development activities for new technology in the heavy oil and oil sands.

The Province has and will continue to assist in the development of technology improvements in existing plants and the incorporation of the latest proven technologies in new commercial plants.

The multi-faceted scope of this thrust for new technology will be:

- to unlock new resources,
- to improve the efficiency of resource development,
- to reduce the environmental effects of development,
- to maximize the value added to the raw resource.

The Alberta Oil Sands Technology and Research Authority (AOSTRA) was established in 1974 to promote these activities and is currently participating in a wide range of joint research activities with private industry.

6. Maintaining an open door policy for project proposals from industry.

Alberta recognizes that the current economic environment and long project lead times add to the risk of major resource development and upgrading projects. The Alberta Government is open and prepared to discuss government participation in major projects to share in and reduce risks, but in return, realize a fair share of the benefits and upside potential of these projects. In order to facilitate this the Department of Energy created in the spring of 1988 a Projects and Supply Development Division with a branch focusing on Oil Sands and Upgrading.

This strategy of heavy oil and oil sands development in Alberta is aimed at unlocking our massive resource potential for the long term prosperity of the province, the continued security of domestic crude oil supply for Canada, and the economic and industrial benefits that this development will bring.

Recent announcements of Alberta's participation in the Lloydminster Bi-Provincial Upgrader and the OSLO Oil Sands Project near Fort McMurray are two examples of this strategy in action. This strategy will continue to guide the Alberta government's role in future heavy oil and oil sands projects, both those already under consideration and those yet to be brought forward for government approval.